

# Spark Gap

Vol. 36, Issue 9, September 2020 MARC - Serving Central Indiana Communities for thirty-six years

#### ON OUR M.A.R.C.:

As I sit and write my final President report, I stop and think about my start in Amateur Radio. I started off thinking that having my Tech license would be enough for me to get on the air and listen and talk to others. That was good until I went to a W9IMS special event and listened to everyone talk all over the world! The pile ups that they were getting and the excitement in people's voices when they finally got through. That's when I went for my General. I was satisfied with that until someone told me that I wouldn't get Extra. I had to prove them wrong! I studied really hard and passed on my first try! I joined the club back in 2008 and ever since then, I have held an office with Mid-State Amateur Radio Club. Being your President the last 6 years has been full of up and downs. I really want to take this time to thank everyone for doing their part in making the club the way it is. We are a TEAM and nothing could be done without all of us.

I really want to thank all the other officer's that worked with me and for all they did. They had my back when things got tough and we got things done whether they were good or bad ideas. We had fun times but got down to business when needed. I really appreciate all that you did. Everyone always went that extra step. Some people may not have been happy with things. But in the end, it all worked out best for the club.

Again, thank you everyone from the bottom of my heart!! Until the next time!

### Jacki, KIGQOG-President

Thank you Jacki for your dedication as the club president to the Mid-State Amateur Radio Club. The club has seen growth and we all had some fun along the way.

Congratulations to our new club officers for 2020 - 2021.

Editor





#### Birthdays for September 2020

KC9VLU - Jacob Lovrinic W9DBA - Scott Nelson K9LYZ - Dayson Smith KA9YKN - Bill Spann KD9IZY - Tracy Walker



Collins at one time had it's own plane.



## **M.A.R.C Officers for 2020 – 2021**



President ..... Tim Aldridge – WC9G



Vice-President ..... Jacki Frederick – KI6QOG



Secretary ..... Chris Read – W9OQ



Treasurer ...... Chris Mazzarella - KC9VGQ



Repeater Trustee ...... Chris Frederick - KQ9Y

#### **Public Service**

## Go-Bags for Short Deployments

The traditional "go-bag" has been a part of amateur radio disaster exercises and deployments for many years. Most of us, however, have a love-hate relationship with them. They're often heavy, bulky, and contain so much stuff we can't even remember what's in all those pockets.

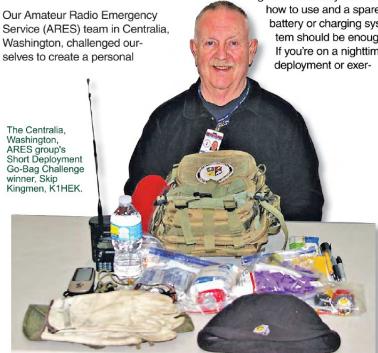
Despite all this, go-bags are very important. Having the supplies you need when you need them is critical. Emergency communication teams train regularly, conducting exercises and drills and participating in community events each year. Go-bags are often mandatory for training exercises and deployments. However, I think the larger go-bags can be left at home or in the trunk of the car, where they'll be safe until they're needed in a disaster. Make building a smaller go-bag fun by taking the Short Deployment Go-Bag Challenge.

mon disasters. Reducing the Weight

go-bag that weighed 10 pounds or less, was easy to carry, and still had all the supplies necessary for a 2-6hour deployment. Our ARES team trains twice each month and conducts community exercises often. Team members generally know what kind of exercise or deployment they'll be working. Because our response area is fairly small, deployments rarely last more than 6 hours before relief arrives. This made smaller gobags a viable possibility. For this challenge, we used a flood scenario, because they're by far our most com-

Weight and bulk are the enemy of any go-bag. It's important to plan ahead and carry only the necessities. You probably don't need two handheld

radios in your go-bag. One good radio that you know how to use and a spare battery or charging system should be enough. If you're on a nighttime deployment or exer-



cise, you may need multiple flashlights. If not, find something smaller. My favorite is a 5-ounce, 5-inch LED light capable of 300 lumens, which I purchased on sale for \$6. Spare batteries for this light weigh 2 ounces. As a backup, consider a small LED headlamp, or one of the many free flashlight apps for your cell phone.

Choose go-bag items carefully, watch the weight, and take only what you need. Introducing it as a team challenge enticed us all to be more creative. For extra incentive, we added a \$25 cash prize for the best overall deployment bag.

The contest winner for the Centralia, Washington, ARES team's Short Deployment Go-Bag Challenge chose a smaller backpack and added the following

- · Handheld radio and spare battery
- · Headset microphone
- · Coax connectors and cables
- Flashlight(s) and spare batteries
- · Car charger for the radio
- Headlamp with spare batteries
- · GPS, compass, and whistle
- Personal protective equipment
- · First-aid kit and rescue blanket
- Personal medication pack
- · Multitool, matches, and lighter
- · Water bottle and snacks
- 100-foot paracord
- Map and field resource manual
- Tape, zip ties, and bungee cords
- · Gloves, sun/rain hat, thermal shirt
- · Notepad, pen, pencil, and markers

#### The Utility Backpack

When putting together a small go-bag, look at the smaller backpacks found at most sporting goods stores. Most come with a handle, and they're lightweight, inexpensive, and leave your hands free to hold a radio. The small backpack I use costs under \$20, has four pockets of different sizes, and is water-resistant. As a bonus, it has a built-in, 2-liter hydration bag (water reservoir) and suction tube. Radios easily clip on the shoulder straps, leaving my hands completely free. Unlike deploying to a shelter where you can set your go-bag down in a safe place until needed, volunteering at a parade or fun run usually demands both hands and there's rarely a safe location to temporarily leave your equipment.

Quality in a small backpack doesn't necessarily mean more expense, but prices can range from \$10 to over \$100, depending on what you buy. Less expensive bags work very well and cost less to replace if they get lost or damaged. Make sure you can easily find the pocket zippers or add something to the zipper to make grabbing it quickly easier. Backpacks with padded shoulder straps are much more comfortable and add little weight.

#### The Waist Pack

For some exercises or deployments, even a small backpack may prove too much. In that case, try one of the many waist packs, often called fanny packs. As the name implies, this small storage pack uses a belt and attaches around the waist or hip. Weighing in at 10 ounces when empty, the waist pack I use still has four zippered pockets and a place to carry a water bottle. There's plenty of room for a flashlight, extra batteries, a small first aid kit, snacks, and more.

If you're shopping online, be sure to read the reviews. Anything out of the ordinary will show up there. For example, I wanted a waist pack that would hold a water bottle. Some reviews stated an ordinary water bottle wouldn't fit.

Waist packs are easier to carry in hot weather and provide better access to the pockets than a backpack. A wide belt is more comfortable than a thinner belt. Medium-sized waist packs, with multiple pockets and the ability to carry a water bottle, usually cost between \$15 – \$25.

#### The Small Equipment Bag

While not hands-free, small equipment bags are convenient and relatively inexpensive. This smaller bag, often found at military surplus stores or online for around \$40, weighs just under 2 pounds when empty, yet offers eight or more pockets and one large storage area.

#### **Contents of Smaller Go-Bags**

It's important to adjust the contents of a go-bag for short deployments. Weather, the time of year, and the type of exercise or deployment require changes to its contents. Keeping your bag near the 10-pound limit is important. Generally speaking, it shouldn't be difficult to stay within these limits when preparing for a 2 – 6 hour exercise or deployment.

Training exercises are the perfect way to test your team's readiness. Small, well-planned go-bags should be part of every exercise or deployment. Always keep in mind that a go-bag that's too heavy is usually a go-bag left behind.

## Field Organization Reports May 2020

#### **Public Service Honor Roll**

This listing recognizes radio amateurs whose public service performance during the month indicated 70 or more points in six categories. Details on the program can be found at www.arrl.org/public-service-honor-roll.

| 580           | 152                                     | KY2D             | W7PHX                                   | 87               |
|---------------|---|------------------|---|------------------|
| KD8TTE        | KD2LPM                                  | W4NWT            | AD3J                                    | W2CTG            |
| ==0           | 150                                     | WB4ZIQ           | AC8RV                                   | W8IM             |
| 550           | 150                                     | KD8ZCM           | WB8SIQ                                  | N3RB             |
| W7PAT         | KK3F<br>N1LL                            | KA9QWC<br>N7IE   | KBØDTI<br>KB2YAA                        | KB1NMO           |
| 474           | NILL                                    | N/IE             | AA3SB                                   | 86               |
| KE8BYC        | 149                                     | 118              | KA2GQQ                                  | KF7GC            |
| KLODIO        | AC8NP                                   | KE8KOC           | KB2QO                                   | KF/GC            |
| 455           | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                  | K8ED                                    | 85               |
| <b>WA3EZN</b> | 140                                     | 116              | N1LAH                                   | N2TSO            |
|               | WØPZD                                   | KA8ZGY           | KE1ML                                   | KL7RF            |
| 415           | WO2H                                    |                  |   | KAØDBK           |
| N9VC          | K4IWW                                   | 115              | 98                                      | WB2VUF           |
| 005           | KØRCJ                                   | K1XFC<br>N1TF    | N2DW                                    |                  |
| 265<br>ND8W   | 135                                     | NIIF             | 96                                      | 84<br>K2IE       |
| INDOVV        | KC9FXE                                  | 113              | KI7TIG                                  | K2IE             |
| 250           | W3GWM                                   | KB8RCR           | W9EEU                                   | 83               |
| WS6P          | K3FAZ                                   | TUDOTTOTT        | WOLLO                                   | NI2W             |
|               | W3YVQ                                   | 110              | 95                                      | 1412.74          |
| 248           |   | KO4OL            | AD4DO                                   | 82               |
| AD8CM         | 133                                     | W2PAX            | K8MDA                                   | KD2MEN           |
|               | WM2C                                    | W1KX             |   | W9BGJ            |
| 240           |   | WA3QLW           | 94                                      |                  |
| KD2NMG        | 130                                     | K6HTN            | KD2GXL                                  | 81               |
| 236           | ACØKQ<br>K8AMH                          | KA5AZK<br>KE5YTA | K9DUR                                   | WB8R             |
| WA2CCN        | WB9QPM                                  | KF5IOU           | 93                                      | 80               |
| WAZOUN        | WØLAW                                   | KA9MZJ           | K1STM                                   | KC7ASA           |
| 230           | N2JBA                                   | KW9EMG           | KC1HHO                                  | KJ7BHO           |
| W9GBG         | KC8WH                                   | WB8YLO           | 110111110                               | N8MRS            |
| KT2D          | WD8USA                                  | KD8UUB           | 92                                      | K2JPS            |
|               | KW1U                                    | KA2ZNZ           | WS4P                                    | AB3WG            |
| 220           | NA7G                                    | N2LJM            | K8RDN                                   |                  |
| KK4PUX        |   | K3IN             |   | 79               |
| 215           | 129<br>Al9F                             | WF2Y<br>WB8TQZ   | 90<br>KM4WHO                            | N3JET            |
| WA7PTM        | AI9F                                    | N5MKY            | WD8DHC                                  | 70               |
| VVA/PTIVI     | 128                                     | N1IQI            | K3MIY                                   | 78<br>N2RQ       |
| 190           | N3KBX                                   | KD2JKV           | AA3N                                    | WW3S             |
| W4CMH         |   | 1607.000000      | K8KRA                                   | K2EAG            |
| WB9WKO        | 127                                     | 107              | KB8HJJ                                  |                  |
| N8SY          | W4INK                                   | WB7OSC           | KA1G                                    | 77               |
|               | K4VWK                                   | 0.2.2            | WDØBFO                                  | WB6NCT           |
| 174           |   | 106              | KA2HZP                                  | N8OYY            |
| N2WGF         | 125                                     | KV8Z             | W3CJD                                   |                  |
| 170           | AG9G                                    | 105              | WB8WKQ<br>KC1KVY                        | 76               |
| W4DNA         | 122                                     | N3SW             | WA1LPM                                  | KN4AAG<br>WB3FTQ |
| WADINA        | K9II.I                                  | KD2IWN           | AB9ZA                                   | WDSFIQ           |
| 160           | W7EES                                   |                  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 75               |
| W2PH          |   | 103              | 89                                      | AF4NC            |
| K9LGU         | 120                                     | W1RVY            | KD2GRS                                  |                  |
| W8DJG         | WA4VGZ                                  |                  | N6IET                                   | 74               |
| 450           | WC4FSU                                  | 100              | W4TTO                                   | KT4WX            |
| 158<br>KY2MMM | K2TV<br>W9RY                            | WB4RJW<br>KZ8Q   | 00                                      | NV1N             |
| K t Z IVIIVIN | K3JL                                    | KN9P             | 88<br>K6JT                              | 73               |
| 157           | WK4WC                                   | NX9K             | WB8YYS                                  | K6RAU            |
| WA2BSS        | KØIBS                                   | KG5NNA           |   | NOTINO           |
|               | K2RMF                                   | KB3YRU           |   | 70               |
|               |   |                  |   | W3ZR             |
|               |   |                  |   |                  |

The following stations qualified for PSHR in previous months but were not reported in this column: (Apr.) WB4ZIQ 120, WF2Y 110. (Mar.) WM2C 318, KT2D 245, WA2BSS 149, N2JBA 130, WO2H 140, N2TSO 90.

#### **Section Traffic Manager Reports**

The following Section Traffic Managers reported: AL, AR, AZ, CO, CT, DE, EMA, ENY, EPA, IL, IN, KS, KY, LA, LAX, MDC, ME, MI, MN, NC, NE, NFL, NLI, MM, NNJ, NTX, NY, OH, OR, SC, SD, SFL, SJV, TN, UT, VA, WCF, WI, WMA, WNY, WPA.

#### Section Emergency Coordinator Reports

The following Section Emergency Coordinators reported: AR, CT, DE, EPA, GA, IA, ID, MDC, MI, MN, MO, NC, NLI, NM, NNJ, NNY, NV, OH, PAC, SFL, SNJ, SV, VI, WCF, WMA, WPA, WY.

#### **Brass Pounders League**

The BPL is open to all amateurs in the US, Canada, and US possessions who report to their SMs a total of 500 or more points or a sum of 100 or more origination and delivery points for any calendar month. Messages must be handled on amateur radio frequencies within 48 hours of receipt in standard ARRL radiogram format. Call signs of qualifiers and their monthly BPL total points follow.

KK3F 1,580, NX9K 1,326, WB9WKO 953, K6HTN 660

#### Application Fees for Amateur Radio Mandated by Congress

#### The FCC Proposes a \$50 Application Fee

- 1. On 26 August 2020, the FCC released a <u>Notice of Proposed Rulemaking (NPRM)</u> that proposes a \$50 application fee for amateur radio licenses. Why did they do that?
- 2. The President signed H.R. 1625, Consolidated Appropriations Act, 2018 (PDF version) into law on 23 March 2018. This appropriations bill consisted of 22 separate funding bills including the funding bill for the FCC.
- a. The FCC funding bill was originally titled "The FCC Reauthorization Act of 2018" but was retitled as the "Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018" or the "RAY BAUM'S Act of 2018".
- b. The "Ray Baum's Act" among other things, amended Sections 8, 9 and 9A of the Communications Act of 1934 and these changes became effective on 1 October 2018.
  - (1) Section 8 (Application Fees) is amended as follows:

"The Commission shall assess and collect application fees at such rates as the Commission shall establish in a schedule of application fees to recover the costs of the Commission to process applications."

"In every even-numbered year, the Commission shall review the schedule of application fees established under this section and, except as provided in paragraph (2), set a new amount for each fee in the schedule..."

"The application fees established under this section shall not be applicable to—

- (A) a governmental entity;
- (B) a nonprofit entity licensed in the Local Government, Police, Fire, Highway Maintenance, Forestry-Conservation, Public Safety, or Special Emergency Radio services; or
- (C) a noncommercial radio station or noncommercial television station."
- (2) Section 9 (Regulatory Fees) was amended and confirmed that regulatory fees shall not be applicable to "an amateur radio operator licensee under part 97 of the Commission's rules (47 CFR part 97)".
- 3. Here are the key points to understand and share:
- a. The concept of application fees for the amateur radio service is not an FCC initiative. The RAY BAUM'S Act requires the FCC to assess and collect fees from several previously uncharged services including the amateur radio service.
- b. According to the FCC, application fees are based on estimates of the direct labor costs to process a typical application, including all labor costs for identifiable tasks up through the first level of

supervision. The costs involved in the automated processes, routine maintenance of the Commission's Universal Licensing System (ULS) and limited instances where staff needs to be involved in the application process are also included when determining application fees. The FCC believes that all these factors justify their proposal of an across-the-board "nominal application fee" of \$50 for Amateur Radio.

- Ι
- c. The amateur radio application fee will apply to the following application purposes:
  - (1) New licenses.
  - (2) Modifications of existing licenses (e.g., upgrades, systematic call sign changes, and vanity call signs).
  - (3) License renewals.
  - (4) Requests for a physical license by mail (including requests for a duplicate license).
- d. The FCC says it is in the public interest to encourage licensees to update their information without a charge. Therefore, there will be no fee for administrative updates.
- 4. The FCC is seeking comments on their proposed fees for amateur radio applications. Once the NPRM is posted in the Federal Register, comments can be submitted online or via mail.
- a. Online Comments may be filed electronically by accessing the Electronic Filing Comment System (ECFS) at: https://www.fcc.gov/ecfs/.
- b. Parties who choose to file by paper must file an original and one copy of each filing. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
  - (1) Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
  - (2) U.S. Postal Service First-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington, DC 20554.

#### 5. Questions and Answers

| 1. Why is the FCC doing this?         | Congress mandated the requirement of application fees. The FCC doesn't have the option of declining to implement application fees for certain services such as amateur radio. |
|---------------------------------------|---|
| 2. When will the fees go into effect? | Unknown.  It could be later this year or early next year.   |
| 3. Do VEs have to collect money?      | No. Payment of application fees will be the responsibility of the applicant.  |

|  | According the NPRM they have two options  |
|--|---|
| 4. How will the applicant pay the fee?   | 1. The applicant can make their payment electronically using the Commission's electronic filing and payment system Fee Filer ( <a href="www.fcc.gov/feefiler">www.fcc.gov/feefiler</a> ). |
|  | 2. They can submit manual filings and payments to: Federal Communications Commission, OET Services, P.O. Box 979095, St. Louis, MO 63197-9000.  |
| 5. What form of payment is acceptable?   | The following credit cards are accepted:  • Visa  • MasterCard  • Discover  • American Express  |
|  | It's not clear if personal checks, cashier's checks or money orders will be accepted.   |
|  | Unknown.  |
| 6. How much time will the applicant have to pay the application fee?                                       | If past fees for vanity call signs are any indication, applicants could have up to 10 days to pay the application fee.  |
| 7. How long will it take the application to be granted once payment is received?                           | Probably the same day or the following business day unless the application is from a felon.   |
| 8. What happens if the applicant fails to submit their payment?  | Their application will probably be dismissed.   |
| 9. If the application is dismissed after paying the application fee, will the application fee be refunded? | Unknown.  |
|  | Probably.   |
| 10. Can a dismissed application be resubmitted?  | Currently, a dismissed application can be resubmitted as long as the CSCE for that application has not expired. There is no information to suggest that this will change.                 |

| 11. What happens when an application is submitted to the FCC?  | <ol> <li>The application will be flagged for manual processing.</li> <li>The status of the application will be "Pending".</li> <li>Once the fee is paid, the application will be granted unless the applicant is a felon, in which case the application will remain in pending status until the FCC grants the application or dismisses the application.</li> </ol> |
|--|---|
| 12. What if the applicant is a felon?  | The felon applicant will probably have two deadlines to meet.  1. Payment of the application fee (Possibly 10 days).  2. Provide their felony explanation (Currently 14 days).  If the application fee is not paid within the time limit (TBD), the application will be dismissed without prejudice.  |
| 13. How long will it take an application from a felon to be granted once payment is received?  | Unknown.  |
| 14. If the applicant for a new license passes the Tech exam on Thursday and the application is pending. The applicant then passes the General exam on Saturday. Is there a way to avoid having to pay the second application fee? What if the applicant is licensed? | Yes.  1. The pending application for a new license (any class) would have to be withdrawn and resubmitted as an application for the appropriate class of license.  2. If the applicant is licensed, the pending application can be amended.   |
| 15. Will the applicant who upgrades their license, renews their license, and requests a systematic call sign change at the same exam session on the same application form have to pay a single application fee or will they have to pay three fees?                  | Unknown.  |

|   | Not a lot.   |  |
|---|--|--|
| 16. What will VEs be required to do?  | Remind or inform applicants that there is an application fee (TBD) and that they are responsible to pay that fee within the allotted time (TBD).      Respirite them a bandout (Table) |  |
|   | Possibly give them a handout (To be developed) that will describe how to submit their payment.   |  |
| 17. Will the VEs or the VEC be able to inform the applicants of their new call sign or upgrade once the application is granted? | Probably not. We don't get notified when a previously pending application is granted.  |  |
| 16. Can the application fees change?  | Yes. The FCC is required to review and adjust the fees as necessary, every two years during even numbered years.   |  |
| 18. Can't the FCC choose not to assess and collect fees on amateur radio applications?  | No. It's the law.  |  |
| 19. What can we do about the application fee requirement?   | Contact your Representative and Senators and let them know how you feel.   |  |
| 20. What can we do about the proposed \$50 application fee?   | You can submit comments on the proposed rulemaking using the means described in paragraph 4, above.  |  |

#### 6. Recommendations.

- a. Share this information with your VEs, clubs and club members. Most hams don't know about this.
- b. Encourage licensees to upgrade their license, change their call sign, seek a vanity call, or if currently eligible or will soon become eligible to renew to do so as soon as possible to avoid an application fee. Sooner is better.
- c. Solicit the following information from your applicants and club members. It could give you an indication of your future activity levels as a VE team.
  - (1) Will an application fee of any amount be a deal breaker? In other words, will it stop you from getting a license, upgrading an existing license, or renewing your license?
  - (2) Is there a dollar amount that will be an economic bridge too far for you? If so, how much?

\$10 \$20 \$30 \$40 \$50 \$60 or more

- (3) Will you put off upgrading until your license is eligible to be renewed in order to save money?
- 7. If you have any questions, contact your Regional Coordinator.

## Shack Of The Month KB9JMU, James Adams

After being an inactive ham for many years, I got my vintage Kenwood TS-180S set up again in August 2019. The KB9JMU Shack has changed a lot in the past twelve months. My most recent addition is a bank of six MFJ 2702 antenna switches that let me mix and match various antennas and radios. A few months ago, I added an ICOM IC-7300 and before that, a Kenwood R-1000 general coverage receiver.

I have a long list of ideas and equipment that I'd like to incorporate into my radio room as Cycle 25 ramps up. Here's a rundown of my current gear:

**TRANSCEIVERS:** ICOM IC-7300 HF+6m, Kenwood TS-180S HF, Sears RoadTalker 11m, Radio Shack HTX-10 10m, Kenwood TM-742 6m/2m/70cm, ICOM IC-2730A 2m/70cm, Yaesu FT-3DR 2m/70cm and ICOM IC-24AT 2m/70cm.

**RECEIVERS:** Kenwood R-1000 and Radio Shack Pro 2037 scanner.

**ANTENNAS:** MFJ-949E & MFJ-929 tuners, Hy-Gain 14AVQ vertical antenna (40m, 20m, 15m, 10m), 2m 5/8 wave base vertical, hamstick dipoles (80m, 10m, 6m and SWL) and various mobile antennas.

**ACCESSORIES:** CW Morse iambic key. Astron, Kenwood, Micronta and Samlex power supplies. Diamond Lightning Surge Protectors. MFJ antenna switches. Kenwood, ICOM and JBL external speakers. Kenwood and BOSE headphones. Breaker Communications and Radio Shack field strength meters, Micronta VOM, Heathkit VTVM and a HP laptop computer. All station power runs through an APC XL1000 for "conditioning."

**SOFTWARE & INTERNET:** LOG4OM, QRZ, LoTW, eQSL, SOTAwatch, POTA, HamAlert, RT Systems, Repeater Book, APRS.FI, DX Summit and more.

Hope to catch you on the air, soon.

73, KB9JMU Jim





#### MID-STATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the THIRD SATURDAY of each month at the Johnson County REMC 750 International Drive Franklin, IN 46131.

See our website, www.midstatehams.org, for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a HAM to attend our meetings or a member of the club.

W9MID Repeater: Club Officers:

President: Tim Aldridge - WC9G

146.835/ Vice President: Jacki Frederick – KI6QOG

146.235 MHz Secretary: Chris Read – W9OQ

(151.4 Hz PL Tone) Treasurer: Chris Mazzarella – KC9VGQ

Repeater Trustee - Chris Frederick - KQ9Y

**W9MID Repeater:** 

443.525/ 448.525 MHz (151.4 Hz PL Tone)

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and <u>ALL RADIO AMATEURS</u> 146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836 Franklin, Indiana 46131

Spark Gap Editor: Robert LaGrange N9SIU

Please send your articles to my email: n9siu@yahoo.com no later than the 2nd week of the month.

